

**A Study of the FY 1984 Fundamentals of VM Course
in Relation to Use of Training on the Job**

by



STAT

Prepared for

**Information Systems Training Division,
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**A Study of the FY 1984 Fundamentals of VM Course
in Relation to Use of Training on the Job**

Executive Summary

Staff members in OTE/ISTD conducted a study in the winter, 1984-85, of the Agency's Fundamentals of VM (FVM) Course in order to address two broad questions: 1) to what extent have employees used their FVM training?; and, 2) how might the FVM course be improved to better meet the Agency's training goals?

These particular evaluation questions were formed in response to direction from the OTE Curriculum Committee. These questions also represent a consensus of interests among ISTD staff and the Hadron contract instructors about the kinds of information necessary to improve the match between FVM training material and the Agency's job-based VM requirements.

This study is based on the group of employees who took FVM training in FY 1984. For the study, questionnaires were sent to all 758 FY84 FVM trainees in order to maximize the probability of obtaining representative information about the use of FVM training from employees in each of the Directorates as well as from employees at various grade levels. One hundred-sixteen questionnaires were returned to ISTD unopened because the trainee had been transferred; 443 were completed and returned before the January deadline, constituting a response rate of 69%.

In general, the results of the study indicated that:

- approximately 3/4 of the respondents have convenient access to a VM terminal;

- about 70% of the survey respondents reported using a VM terminal at least several times a month;
- a majority of the respondents use VM to create, edit, and manipulate files and/or to communicate electronically with other users;
- the Logon sequence was considered to be the most useful course objective; using FVM to prepare for another ADP course was thought to be the least useful objective;
- approximately 50% of the respondents rated each of the content elements as "useful" and "very useful";
- the most frequently cited reason for taking the FVM course was to fulfill a job requirement;
- the single most widely mentioned concern was the class composition in terms of some students having previous experience with VM terminals and others having none;

In sum, the evaluation findings suggest that, for some 20-30% of the respondents, the FVM course was not particularly useful in the performance of assigned tasks. This percentage is too large. As a consequence, ISTD is working to revise both the course administration and content to be congruent with the Agency's philosophy of skills training and the employees' job responsibilities.

**A Study of the Y 1984 Fundamentals of VM course
in Relation to Use of Training on the Job**

Introduction

During the winter of 1984-85, staff members in the Information Systems Training Division (ISTD) conducted a study of the Agency's Fundamentals of VM course in order to address two broad questions:

- To what extent have employees used their Fundamentals of VM (FVM) training?
- How might the FVM course be improved to better meet the Agency's training goals?

These particular evaluation questions were formed in response to direction from the OTE Curriculum Committee. These questions also represent a consensus of interests among ISTD staff and the Hadron contract instructors about the kinds of information necessary to improve the match between FVM training material and the Agency's job-based VM requirements.

This study is the first in a series of program assessments within ISTD. The decision to systematically incorporate evaluation findings into the planning activities of the FVM course was based on several factors:

- a. The skills taught in the FVM course represent prerequisite proficiencies for other ISTD-sponsored courses.
- b. FVM is the single most frequently offered course.
- c. The demand for FVM is likely to increase over the next several years as the Agency continues to its transition from paper to electronic communication.
- d. ISTD has taught FVM for approximately two and one-half years, and feedback from employees about the ways in which they use VM on the job is considered critical to improving future FVM course offerings.

This report is divided into two parts. The first presents the results of our analyses of the survey data that was gathered to assess the use of FVM training in job-based activities, and is entitled "Uses of FVM Training." The second part of this report makes observations and recommendations regarding the place of the FVM course in meeting the Agency's need for basic computer skills training, and is labeled "FVM Course in Relation to Agency Computer Skills Training."

Uses of FVM Training

One purpose of this study was to examine the extent to which the skills taught in the FVM course are used on the job. As a consequence, critical FVM skills were delineated by ISTD staff and the contract instructors. Former FVM students were then asked to identify the kind of work they did which required using VM and to estimate how frequently they used the terminal.

Sample, Method, and Procedures

Sample

This study is based on the group of employees who took FVM training in FY 1984. For the study, questionnaires were sent to all of the FY84 FVM trainees in order to maximize the probability of obtaining representative information about the use of FVM training from employees in each of the Directorates as well as from employees at various grade levels.

According to the records both in OTE/Central Registration and in ISTD, a total of 758 students completed FVM in FY 84. The demographic characteristics of the FY84 FVM students are presented on the next page in Table 1. The data in Table 1 indicate that the largest percentage (45.1%) of these students were from the DDI.

As indicated by the data in Table 1, the majority of employees who took FVM in FY 84 were female, from the DDI, and employed below GS-10 level.

Then, categories of employees' Agency experience are presented by GS grade level in Table 2.

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The data in Table - indicate that while approximately 50% of the FY 84 FVM students are GS 03-09 and have less than 5 years of Agency experience, 40% of the entire sample have three or fewer years of Agency experience.

In sum, the demographic data show that employees receiving FVM training tend to be the "new blood" of the Agency.

Method

The paper-and-pencil survey questionnaire method was used to obtain information from the FY84 FVM course participants. A single set of questions was designed initially by staff members in ISTD. Senior Training Officers and the contract instructors critically reviewed the questionnaire and provided suggestions which were incorporated into the instrument used in this study.

Procedures

On December 3, 1984, 758 FVM survey packets were sent out through the Agency mail. The survey packets contained the questionnaire, a memo from the Chief, ISTD, describing the purpose of the evaluation and a self-addressed return envelope. Then, two weeks later, a "nudge note" was sent to each of the 758 course participants, as a reminder to complete and return the questionnaire before the January 7, 1985 deadline. A copy of the survey questionnaire, cover memo, and nudge note may be found in Appendix I.

ResultsResponse Rate

Of the 758 survey questionnaires mailed out, 116 were returned unopened to ISTD because the former FVM students had either been transferred or had left the Agency. Four-hundred forty-three questionnaires were returned to ISTD on or before the January deadline. Hence, of the 642 potential survey respondents, 443 completed and returned a questionnaire, constituting a response rate of .69%. For the purposes of this study, a rate of response in excess of 50% is quite adequate and suggests a rather high degree of willingness on the part of Agency employees to participate in a follow-up assessment of training (particularly if the questionnaire is received during the Holiday season).

It should also be noted that staff in the Office of Data Processing (ODP) contacted ISTD in mid-December 1984 to make arrangements for being included in the FVM evaluation since ODP had also taught several courses in FY 84. As a consequence, the same questionnaire and cover memo were mailed to 60 former ODP FVM students. Eleven questionnaire packets were returned to ISTD because the employees had transferred to other offices or were no longer with the Agency. Of the 49 potential ODP respondents, 22 completed and returned a questionnaire, yielding a response rate of nearly 45%. A separate report describing the findings of the FVM survey for former ODP trainees has been submitted to the Chief of ODP training. It may be noted here that, although the ODP survey sample was small, the findings were quite similar to those for the larger ISTD sample.

Access to VM Terminal

In order to identify the extent to which FVM training is used on the job, the availability of a VM terminal at the work site was first identified. Items #6 and #7 in the questionnaire addressed this basic resource issue and the data are presented in Table 3 below.

Table 3

**Frequency Distribution of Responses
to Questions about Terminal Access (n=443)**

<u>Question</u>		<u>n</u>	<u>%</u>
6. Terminal in immediate office?	yes	345	77.9
	no	98	22.1
7. A) Terminal in office work area?			
	yes	384	86.7
	no	59	13.3
B) Is terminal convenient?	yes	335	75.6
	no	108	24.4

The frequency distribution of yes/no responses to questions #6 and #7 in Table 3 indicates that approximately 3/4 of the survey respondents have convenient access to a VM terminal. In addition, 13% do not have a terminal in either their immediate office or in their office work area. As a consequence, the FVM training for some 50 students was poorly timed. That is, since basic skills training has a short shelf life, the training should dovetail immediately with a work assignment designed to utilize the training. The shelf life for basic computer training, for example, has been reported as being as short as 8 days, after which little transfers from the classroom to the job (Goldstein, 1980). Therefore, with no such immediate assignment, the training was of little or no use.

Frequency of VM Terminal Use

Simple access and/or availability to a VM terminal, however, does not guarantee that the terminal will be used. In Table 4, the number and percent of responses are presented to Question 8, involving the frequency with which a terminal is used.

Table 4
Frequency Distribution of VM Use (n=443)

8. How often do you use a VM terminal?

<u>Response Category</u>	<u>n</u>	<u>%</u>
Nearly every day	163	36.8
At least several times a week	95	21.5
Usually several times a month	59	13.3
Once a month	47	10.6
Hardly ever/never	79	17.8

Perhaps the single most useful data in Table 4 is not that approximately 37% report using a VM terminal every day, but rather that about 18% "hardly ever or never" use one. An additional 11% of the former FVM students report using the terminal only about 12 times a year. So, for the purposes of this study, it is estimated that roughly 25% of the employees who received FVM training in FY84 have found little or no use for it.

Nature of VM Terminal Use

For those who do use VM, there are essentially four kinds of work for which it is typically used: files, data, documents, and mail. The number and percent of respondents reporting to use the VM terminal for one or more of these kinds of work are presented in Table 5, on the next page.

Table 5

**Frequency Distribution of Kinds of Work
Using VM Terminal (all categories, n=443)**

**9. For what kinds of work do you usually use the terminal?
(check all that apply)**

<u>Response category:</u>	<u>n</u>	<u>%</u>
Create, edit, manipulate files	236	52.3%
Analyze Data (e.g. SAS)	75	16.9%
Write memos, reports	145	32.7%
Use Electronic Mail	201	45.4%

The data in Table 5 indicates that the majority of VM users create, edit, and manipulate files; another large user group are those who Logon to VM and access the electronic mail/information system. It should be noted that the figures for each category listed in Table 5 represent the total number of times the survey respondents checked a particular kind of work. That is, some respondents may have checked all the work categories, while others may have checked only one.

In Table 6, the number and percent of respondents who checked only one work category are presented.

Table 6

**Frequency Distribution of Kinds of Work
Using VM Terminal (only one category, n=443)**

<u>Response Category</u>	<u>n</u>	<u>%</u>
Create, edit, and manipulate files (only)	129	29.1%
Analyze Data (only)	32	07.2%
Write memos, reports (only)	42	09.5%
Use Electronic mail (only)	112	25.3%

The data in Table 6 show that 71.7% of the VM users use the terminal for only one type of work.

In sum, the data in Tables 4, 5, and 6, on both the frequency and kinds of VM use noted by the survey respondents, indicate three points:

- 1) Nearly 30% of the respondents do not regularly use a VM terminal.
- 2) Roughly 30% of the respondents use one VM terminal for more than one kind of work.
- 3) A majority of the respondents use the VM terminal either for file activity or for accessing AIM.

Thus, as we examine the respondents ratings of usefulness of both the course objectives and content elements, we would expect that approximately 30% would find them not useful. A frequency distribution of responses to the usefulness of the course objectives is presented in Table 7.

Table 7
Frequency Distribution of Survey
Responses on Usefulness of Course Objectives

<u>Course Objectives</u>	<u>Not Useful</u>		<u>Rating of Usefulness</u>		<u>Very Useful</u>		<u>Undecided</u>	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
Logon sequence	32	7.2%	125	28.2%	234	52.8%	52	11.7%
Creating files	91	20.5%	137	30.9%	146	33.0%	69	15.6%
Changing files	90	20.3%	129	29.1%	150	33.9%	74	16.7%
Sending info	97	21.9%	143	32.3%	131	29.6%	72	16.2%
Printing	78	17.6%	132	29.8%	165	37.2%	68	15.2%
Preparation for Other ADP Course	80	18.1%	116	26.2%	112	25.3%	135	30.5%

The data in Table 7 indicate that the respondents found the Logon sequence to be the most useful course objective. When the responses in the "not useful" category are combined with those in the "undecided," category, preparation for another Automated Data Processing (ADP) course was found to be the least useful course objective. Of the 443 FY84 FVM students, 206 reported taking no additional computer skills training. Overall, and with the exception of the Logon sequence, approximately 50-60% of the respondents rated the course objectives as "useful" to "very useful." The numbers of responses in the "not useful" category increased somewhat for the more course-specific content ratings. A frequency distribution of the course content ratings is presented in Table 8.

Table 8
Frequency Distribution of Responses
on Specific FVM Course Content

<u>FVM Content</u>	<u>Rating of Usefulness</u>				
	<u>Not Useful</u> <u>(n)</u>	<u>Useful</u> <u>(n)</u>	<u>Very Useful</u> <u>(n)</u>	<u>Undecided</u> <u>(n)</u>	<u>%</u>
XEDIT Commands	123 27.8%	116 26.8%	120 27.1%	84 18.9%	
Input	125 28.2%	117 26.4%	119 26.8%	82 18.4%	
Find	167 37.3%	114 25.7%	59 13.3%	103 23.2%	
Locate	143 32.2%	108 24.4%	101 22.8%	91 20.5%	
Change	140 31.6%	107 24.2%	106 23.9%	90 20.2%	
Retype	188 42.4%	105 23.7%	48 10.8%	102 22.9%	
Putd & Get	174 39.3%	101 22.8%	58 13.1%	110 24.8%	
CMS: List	123 27.8%	110 24.8%	129 29.1%	81 18.2%	
Copy	152 34.3%	108 24.4%	72 16.3%	111 24.8%	
Help	152 34.3%	118 26.6%	72 16.3%	101 22.8%	
Send files	158 35.7%	82 18.5%	82 18.5%	90 20.3%	
Full Screen	137 30.9%	84 19.0%	136 30.7%	86 19.3%	
Message	145 32.7%	124 28.0%	77 17.4%	97 21.8%	
Course Book	112 25.3%	143 32.3%	119 26.9%	69 15.4%	

The data in Table 8 show that while the "XEDIT" and "Input" commands were found to be the most useful on the job, one-third or more of the respondents found "Find," "Retype," "Putd & Get," "Copy," "Help," and "Send files" to be not useful. That approximately 50% of the respondents rated each of the content elements as "useful" to "very useful" is a finding consistent with data from other parts of the survey questionnaire.

To identify if differences in content ratings were related to the different work categories, chi-square tests (χ^2) of independence were performed. As one might expect, the course content ratings from those who used VM primarily for electronic mail and/or data analysis tended to be in the "not useful" and "undecided" category, and have chi-square values which were not significant. On the other hand, ratings from those who use VM primarily for filing and writing documents departed significantly from independence for all the FVM course content elements. Because the cell frequencies in the chi-square analyses were from 5%-20% empty, the Statistical Analysis System (SAS) warned that the chi-square results may not be entirely valid. Hence, the data from these chi-square tests can be used only to suggest that the course content is probably more useful for those who create, edit, and manipulate files, and/or write documents than it is for those who use a VM terminal primarily for mail and data analysis.

Course Assessment Comments

In order to better understand the context of the course objectives and content data, comments from the course assessment section of the questionnaire are listed below. In general, approximately 70% of the respondents offered one or more comments for questions #1 and #3, and about 30% for questions #4 and #5. Only those perceptions, however, which were mentioned nine or more times (representing at least 2% of the survey respondents) are listed in this report. It should be noted that there is considerable consistency among the type of comments made on all the questions.

Question #1: Why did you take FVM?

(n)

OPINION: I took VM because.....

- It was a requirement of my office work (or to do a better job) (164)
- I wanted to gain working knowledge of VM/Delta Data equipment to use other systems (84)
- It was required/recommended by management (78)
- I am interested in learning about the computer (72)
- I need to develop/use an electronic filing system (26)
- VM is necessary for AIM (24)
- It is a prerequisite to other courses (14)
- I wanted to reinforce on-the-job training I had already gotten (10)
- I need a broad overview for my management responsibilities (10)

The most frequently cited reason for taking the FVM course was a job requirement. Other job related reasons were "... to use other systems", "...develop/use an electronic filing system", and "...for management responsibilities." Taken together, the sum of the work-based reasons for taking FVM is 284, or about 64% of the respondents.

Meet your objective

The few comments offered for Question #2: In what ways did the FVM course meet your objective?, either repeated what the respondent had said in question #1, or as in the case of eleven individuals, the answer "nothing" or "none" was given. Ninety percent of the survey respondents left this question blank; hence, we can conclude that this question was a very poor one, adding nothing useful to the survey.

Fortunately, for the remainder of the course assessment items, the majority of respondents offered their views. For question #3, the following comments were offered:

Question #3: In what ways were you disappointed by the FVM course (other than not having a 1-1 student to terminal ratio)?

OPINION: I was disappointed in that.... (n)

There was such a wide diversity among students knowledge of computers and terminals (137)

Too much time was allotted; covered too little material (90)

There was a lack of practical application examples and workshops (74)

I do not use VM in my present job (71)

The course material did not include the information systems I use in my work (63)

Not enough time was allotted; tried to cover too much material (52)

Course was too basic; should have learned more commands (49)

Not enough explanation (30)

Instructors/teaching assistant were not good (9)

The single most frequently mentioned disappointment of the FVM course involved the class composition. In addition, the difficulties associated with being in a class in which the students do not enter with relatively the same subject matter ignorance was noted 109 times on another item, (V., page 3, What would you include in the design of an FVM course). In general, then, it seems that the students would much prefer to be in a homogeneous class - those with no terminal computer experience in one group, and those with some experience in another.

With respect to Questions #4 and #5, only about 1/3 of the respondents commented. (There were 130 and 141 responses, respectively.) Of each, approximately one-half of the comments stated "no problem" or "none."

Question #4: What kind of problems/challenges have you encountered when you use VM that you consider to be related to VM literacy?

OPINION: I have encountered... (n)

- No problems (63)
- The need to have a full understanding of VM is required before I can use other systems (21)
- Word processing capabilities which are not as user friendly as those in the Wang (17)
- Difficulties with the exec profile because it was not explained in course (11)
- Documentation for other commands (11)

Question #5: Were there any elements that, in hindsight, you have found to be especially worthwhile?

OPINION: I found especially worthwhile... (n)

- Nothing (65)
- Full-screen (31)
- Editing (26)
- QQuit (13)
- Safety/security presentation (13)
- Explanation of different environments (9)

Although the comments to Questions #4 and #5 are sparse, they can serve as one source of information when considering possible FVM course changes. Another potentially useful piece of information to future FVM courses is the data on course composition. Responses to Questions #6 and #7 underscore the diversity of experience with which students enter the FVM course.

Question #6: Did you use VM before you took the course?

YES: 187 (42.2%) NO: 221 (49.9%) Blank: 35 (7.9%)

Question #7: Did you use another system (e.g. Wang before learning VM?)

YES: 195 (44.0%) NO: 211 (47.6%) Blank: 37 (8.4%)

The responses to Questions #6 and #7 show that the survey respondents were roughly divided on whether or not they entered the FVM course with previous computer and/or terminal experience.* Since these data corroborate comments offered in Question #3, the question for future of FVM courses is the extent to which the numbers of trainees with prior experience is apt to increase over the next several years, especially considering that the Agency is continuing to acquire new systems of office automation.

Summary

Analyses of the survey data gathered to assess the extent to which employees tend to use their FVM training on the job suggest that approximately 70% of the FY84 FVM students have work that requires use of a VM terminal at least several times a month. The greatest percentage of these employees use VM to either create, edit, and manipulate files or to communicate electronically with other users.

In addition, the majority use a VM terminal for a single work activity. The FVM course content was considered to be more useful among survey respondents who use the VM terminal for work activities which involve files or writing documents. Those respondents who use

*The ratings of course objectives and course content usefulness were analyzed according to whether or not the student had used VM or another system prior to taking the FVM course. There were no statistically significant differences between the ratings of employees which could be attributed to previous terminal experience.

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VM primarily for data analysis or electronic mail tied to rate the course content as less useful. Among all categories of VM users, however, the Logon sequence was noted as being the most useful; preparation for another ADP course was thought to be the least useful of the course objectives.

Approximately one-half of the respondents (237) took additional ISTD computer skills training, and most of them took more than one course. (The most frequently taken courses were AIM, SAFE, GIMS, and IVM).

Overall, opinions expressed in the course assessment section of the questionnaire were notably consistent. The most widely expressed concern dealt with the composition of the classes. That is, the diversity of students previous experience with VM terminals and/or other computer-based systems was considered to be detrimental to the functioning of the class. Those with previous terminal experience tended to find the class painfully elementary, redundant, and slow; those, on the other hand, who had no prior experience, tended to find the class pace entirely too fast and the explanations too shallow. As a consequence, while many of the students wanted to cover more commands and practical applications during the allotted course time, others felt that another day or two could easily be added to the FVM course.

In sum, the evaluation findings suggest that, for the most part, the FVM course has been useful to employees in the performance of their assigned tasks. For some 20-30% of the respondents, however, the FVM course was not particularly useful. While it is virtually inevitable that some students will not use their training on the job, the percentage of such students in the FVM group is too large. For job-based skills training courses, there should probably be less than 5% in this category. The course administration and course content should be designed to be congruent with both the Agency's philosophy of skills training and the employees' job responsibilities.

FVM Course in Relation to
Agency Computer Skills Training

In general, there are two kinds of computer skills training courses. One is essential for job performance; the other is desirable for career advancement. Requirements for course administration and the design of the course content vary according to whether the course is categorized as offering essential or desirable training. Assuming that the FVM course represents training that is essential for the performance of assigned tasks and responsibilities, some considerations are discussed. It goes without saying that it is pointless to offer computer skills training to persons who do not have access to a terminal.

Course Administration

In terms of delivering the FVM course there is a broad concern: How to get the "right" people in the "right" course at the "right" time? The findings of the FY84 FVM assessment suggest that for approximately 70% of the people, a majority of the FVM content was about "right", particularly if the trainee intended to use FVM for creating, editing, and manipulating files and/or writing documents. The issue, here, is assuring that the "right" people are those who have an immediate job related need for the course; offering a course that is "right" in terms of students' previous terminal experience; and, placing students in the course at the "right" time - a time that coincides with their need to use the training on the job.

Assuming the availability of the "right" course for a moment, let us focus on delivering the course in a timely fashion to those who really need it. Historically, the FVM course has been a prerequisite for other computer skills training courses offered by the Agency. Although FVM training has been conducted as frequently as resources have permitted, there has usually been a waiting-list in excess of 100 applicants.*

Given that approximately 20% of the survey respondents do not use their FVM training on the job, it is likely that some employees on the FVM waiting list also have no immediate, job-based need for the training. As a consequence, ISTD should consider ways to collaborate with OTE Central Registration to assure that each of the trainees has a current requirement for the FVM course in order to fulfill a particular job responsibility. It may be that before course registration is conducted on-line, an ISTD/FVM Training Assistant could telephone each of the students assigned to a course offering to identify whether or not the applicant intends to use FVM knowledge and skills on the job. For those who want to take FVM to learn how to Logon or to access AIM or to apply for SAFE training, alternatives to the entire FVM course should be made available. Instructional methods should be designed for those who take FVM for non-specific job-based purposes.

*As of January, 1985, there were 127 employees on the FVM waiting list. In addition, 51 employees were already assigned to classes scheduled in March and April. As with the sample used in this study, a majority of the employees seeking to take FVM were from the DDA and DDI.

Course Content

After determining through the FVM registration process that an applicant has both a job need and access to a VM terminal, the individual should receive, as part of the course confirmation, a schedule of the FVM content delineating the day, time, and topic to be presented. This schedule of discrete FVM course modules could also include a list of modules recommended for particular kinds of users. For example, if the individual is a novice VM user, with no previous terminal experience, he or she could attend the Introduction to VM, Keyboard, and Logon module. If the same individual were to be using VM to create and edit files, then the modules on Xedit commands and Full-Screen would be appropriate and recommended.

In sum, because the present FVM course is an essential, basic computer skills course, it would seem inadvisable to begin to tailor several FVM courses to an array of job specific needs within the Agency's user community. Instead, ISTD could design a single VM course composed of a series of separate, but related, modules. An employee could elect to attend training in only those topics which are appropriate to his circumstance. Supervisors, training officers, and ISTD staff members would advise employees who seek guidance as to which VM training modules are job appropriate.

In the longer term, it may be that some FVM topics could be available in a CBT mode. In the near term, however, dividing the content of the VM course into skills modules would offer the employee flexibility and responsibility for acquiring the necessary job-related skills. Such use of modules would also foster increased employee-supervisor discussion of job utilization of VM training. (For a broader proposal of FVM training modules, the ISTD reader is referred to the outline developed by [redacted])

STAT

Course Critiques

As presently constituted, the course critiques are of little use in either improving the design or the delivery of the FVM instruction. Since the FVM course represents training that is essential, rather than simply desirable, a more meaningful critique perhaps could be in the form of a certification that the students did, in fact, acquire the skills that were intended by the instruction. This type of skills specific critique informs both the instructor and the student of any deficiencies which might warrant further attention either in the classroom or on the job.

For a course designed and delivered as a series of separate, but related modules, a demonstration of skill acquisition would be required at the end of each module. (This exercise should have parallel forms so the students can demonstrate mastery after correcting initial learning errors).

In addition to using student performance on module specific exercises to evaluate the effectiveness of the course materials and instruction, the instructor should encourage all trainees to offer related comments in writing after the employee has had an opportunity to use on the job the skills acquired in the FVM course. Then, within 30-45 days after the close of each class, the FVM Training Assistant (TA) should telephone a random sample of students to determine the extent to which the student is using the training and what, if any, kinds of VM difficulties the student is having. The TA notes from these follow-up conversations would be used along with a profile of students' module performance in conducting an annual ISTD review of the FVM course.

It should be noted that while it is the Agency's responsibility to provide training that is essential to job performance, it is the responsibility of the individual employee and supervisor to use that training. Hence, an essential type of training course such as FVM can only certify that at the end of the training the employee could demonstrate that he had acquired particular FVM knowledge and skills. It is the employee and supervisor who must then transfer and/or translate that learning into job performance. Until now the success of FVM has been gauged principally by student perceptions of the quality of the instruction; in the future, perhaps the success of the FVM course will be measured primarily by student achievement in the course and on the job.

APPENDIX I

3 December 1984

MEMORANDUM FOR: FVM Trainees

FROM:

Chief, Information Systems
Training Division, OTE

SUBJECT: Evaluation of the Fundamentals of
VM (FVM) Training Course

STAT

1. The Information Systems Training Division (ISTD) in the Office of Training and Education is evaluating the extent to which the Fundamentals of VM (FVM) course provides Agency employees with the VM skills necessary to meet their basic job requirements. This information will be used to revise the FVM course during the winter of 1985.

2. As a consequence, we are asking all Agency employees who completed the FVM course in FY84 to participate, anonymously, in our evaluation.

3. Enclosed are a questionnaire and a pre-addressed envelope. Our assessment will reflect the views of the group of FVM graduates and no comments will be attributed to an individual. To assure that your privacy will be protected, please do not sign or otherwise identify your questionnaire.

4. We trust that you will offer your most candid opinions regarding the usefulness of the FVM course and that you will return the questionnaire no later than 7 January 1985. The results of this evaluation will be analyzed in January and we will forward an executive summary of the evaluation findings to you in February, 1985.

5. Thank you in advance for your cooperation.

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FUNDAMENTALS OF VM (FVM) QUESTIONNAIRE**I. General Information.**

1. When did you take FVM? month _____ year _____

2. What was your job when you took FVM? _____

3. What is your job now? _____

4. What was your grade level when you took FVM? _____
What is your grade level now? _____

5. Check all the ADP courses you have completed since your FVM course?

<u> </u> IVM	<u> </u> AIM	<u> </u> SCRIPT	<u> </u> HBWP
<u> </u> EXEC2	<u> </u> GIMS	<u> </u> CAMS I	<u> </u> CAMS II
<u> </u> SAFE	<u> </u> NOMAD2	<u> </u> RAMIS I	<u> </u> RAMIS II

6. Is there a terminal in your immediate office?
yes no

7. Is there a terminal in a work area/work station in your office? yes no . Is it convenient for you? yes no

8. Approximately how often do you use a VM terminal?

 virtually all the time (nearly every day)
 frequently (at least several times a week)
 sometimes (usually several times a month)
 rarely (once a month or less)
 hardly ever (can count the number of times per year
on one hand!)

9. For what kinds of work do you USUALLY use the terminal?
(Please check all that apply).

 files: to create, edit, manipulate files
 data: to do data analysis (e.g. SAS)
 documents: to write memos, reports, etc.
 electronic mail: to communicate with other users
 other, Please Specify:

II. Course Objectives. Please rate each of the FVM course objectives in terms of how USEFUL that knowledge is to you NOW---in your PRESENT JOB, using a scale of:

- (1) Not Useful,
- (2) Useful,
- (3) Very Useful, and
- ? Don't know, can't say.

Accessing VM via the Logon sequence	1	2	3	?
Creating files	1	2	3	?
Changing file content	1	2	3	?
Sending information to another user	1	2	3	?
Directing output to a printer	1	2	3	?
Preparing for another ADP course	1	2	3	?

III. Course Content. Using the same 3 point scale as above, in part II, please answer the following questions by circling the number that comes closest to your VM use.

TO WHAT EXTENT DO YOU NOW USE.....

1. xedit commands?	1	2	3	?
2. particular xedit commands such as:				
input?	1	2	3	?
find?	1	2	3	?
locate?	1	2	3	?
change?	1	2	3	?
retype?	1	2	3	?
putd & get?	1	2	3	?
3. CMS commands such as: listfile?	1	2	3	?
copyfile?	1	2	3	?
help?	1	2	3	?
4. Sending files?	1	2	3	?
5. Full screen editing ?	1	2	3	?
6. Message function?	1	2	3	?
7. FVM course book as a reference?	1	2	3	?

IV. Possible Training Related to your job/career. ISTD is in the process of identifying ADP training needs. Considering your work and your experience, we ask you please to rate each of the following on a scale of 1 to 3 (where 1 represents "not particularly important" and 3 is "extremely important" and ? is "don't know/can't say"). Here, the notion of importance is in terms of what you think you and the people in your office need to carry out program/office/division/Agency objectives.

<u>Course Title</u>	<u>Potential Importance to Agency Employees</u>			
	1	2	3	?
SCRIPT				
Intermediate VM	1	2	3	?
AIM	1	2	3	?
RAMIS I or II	1	2	3	?
NOMAD	1	2	3	?
EXEC2	1	2	3	?
HBWP	1	2	3	?
GIMS	1	2	3	?
CAMS I or II	1	2	3	?
SAFE	1	2	3	?
Other courses, please specify:				
_____	1	2	3	?
_____	1	2	3	?
_____	1	2	3	?

V. If you were responsible for designing a FVM course, what topic/unit/content that was NOT part of your course would you definitely include?

Which, if any, of the topics/units in your course should have had more time spent on them?

VI. Course Assessment. Please describe your views as fully as possible for each of the following questions.

1. Why did you take FVM?

2. In what ways did the FVM course meet your objectives?

3. In what ways were you disappointed by the FVM course (other than not having a 1-1 student to terminal ratio)?

4. What kinds of problems/challenges have you encountered when you are using VM which you consider to be related to VM literacy?

5. Were there any elements/topics/units that, in hindsight, you have found to be especially worthwhile?

6. Did you use VM before you took the course? If so, how much and in what ways?

7. Did you use another system (e.g. Wang, Apple) before learning VM? If so, how much and in what ways?

8. What is your general recollection of the quality of the FVM instruction?

13 December 1984

MEMORANDUM FOR: FVM Trainees

FROM:

[REDACTED] STAT
Chief, Information Systems
Training Division, OTE

SUBJECT: The FVM Survey Questionnaire

1. If you have already completed and returned a questionnaire about your Fundamentals of VM (FVM) course, please disregard this missive.
2. If, however, you have not yet had the opportunity to answer the survey questions, please delay no longer.
3. The FVM survey findings will be the most useful if this assessment is based on the largest possible sample of opinions from trainees who took the course in FY84.
4. Since we will begin our analysis of the data soon after the first of the year, we need your questionnaire returned no later than 7 January 1985.
5. Again, thank you in advance for your participation in this evaluation effort.



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